



This significant modification includes changes approved under R13-2192L (issued 4/6/09) and R13-2192N (issued 2/23/12).

**Emissions Summary**

<b>Change in Plant-wide Emissions [Tons per Year]</b>	
<b>Regulated Pollutants</b>	<b>Change in Potential Emissions</b>
Carbon Monoxide (CO)	+15.85
Nitrogen Oxides (NO <sub>x</sub> )	+39.80
Particulate Matter (PM <sub>10</sub> )	+11.67
Total Particulate Matter (TSP)	+25.17 & +0.21 (from R13-2192L)
Sulfur Dioxide (SO <sub>2</sub> )	+3.95
Volatile Organic Compounds (VOC)	+18.40 & +3.0 (from R13-2192L)
<i>PM<sub>10</sub> is a component of TSP.</i>	
<b>Hazardous Air Pollutants</b>	<b>Change in Potential Emissions</b>
Formaldehyde	+2.75
Methanol	+5.86
Total of misc. non-major HAP	+11.79
Total HAP	+20.40 & +0.05 (from R13-2192L)

*Some of the above HAPs may be counted as PM or VOCs.*

**Title V Program Applicability Basis**

With the proposed changes associated with this modification, this facility maintains the potential to emit 26.1 TPY of Methanol, 51.61 TPY of Total HAPs, 173.3 TPY of NO<sub>x</sub>, and 178.1 TPY of VOCs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, JELD-WEN is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

**Legal and Factual Basis for Permit Conditions**

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	To Prevent And Control Particulate Air Pollution From Combustion Of Fuel In Indirect Heat Exchangers
	45CSR7	To Prevent And Control Particulate Matter Air Pollution From Manufacturing Processes And Associated Operations
	45CSR10	To Prevent And Control Air Pollution From The Emission Of Sulfur Oxides

45CSR13	Permits For Construction, Modification, Relocation And Operation Of Stationary Sources Of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, And Procedures For Evaluation
45CSR16	Standards Of Performance For New Stationary Sources Pursuant To 40 CFR Part 60
45CSR30	Operating permit requirement.
45CSR34	Emission Standards for HAPs
40 C.F.R. Part 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
40 C.F.R. Part 63, Subpart DDDD	National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products
40 C.F.R. Part 63, Subpart QQQQ	National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products
40 C.F.R. Part 63, Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants of Industrial, Commercial, and Institutional Boilers and Process Heaters.

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

**Active Permits/Consent Orders**

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit <i>(if any)</i>
R13-2192N <sup>1</sup>	2/23/2012	

<sup>1</sup>The last permit included with this Title V permit was R13-2192I. R13-2192L was issued on 4/6/09, but an application for a Title V modification was not submitted.

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

**Determinations and Justifications**

**Emissions and Compliance**

This modification represents a significant change in the way JELD-WEN calculates their emissions and how compliance is determined. Previously, VOC and HAP emissions from this facility were calculated on a mass balance basis, while most other criteria pollutants were based on AP-42 emission factors. With this modification, JELD-WEN requests to change that methodology and base some emission calculations on stack testing of the dryer, boilers, and press. Emissions calculations using this methodology result in higher emission values. The new calculation method combined with the production/material usage increases account for the increased emissions.

Previously, JELD-WEN was required to monitor and/or record:

- HAP and VOC content
- Usages of resins, waxes and primers
- Emissions calculations

JELD-WEN will now maintain records on site documenting that no resin or wax was used which had a higher HAP or VOC content than what was used during the most recent stack test that was in compliance with permitted emission limits.

Note: Emissions from the primer will continue to be calculated using a mass balance approach since it is not applied until after the product goes through the dryer and press.

#### **Permit Changes**

The following permit conditions were revised, added, or removed with this modification:

- The emission units table was updated to reflect the current facility configuration and design capacities.
- The emission limits in conditions 4.1.6, 4.1.7, 4.1.9, 5.1.8, 5.1.11, 5.1.12, and 5.1.13 were increased.
- Condition 4.2.2 previously required monthly Method 9 readings for boiler B2 (Emission Point: E6). This condition has been revised to only require Method 9 readings if visible emissions are observed during a Method 22 reading. Based on the compliance history of boiler B2 and that it only combusts natural gas, visible emissions are not anticipated.
- Conditions 4.2.3, 4.2.4, 5.2.2, and 5.2.5 were removed. These conditions concerned mass balance and emission factor based emission compliance.
- The MDI concentration limit in condition 5.1.1 was removed since the testing that served as a basis for the emission calculations was performed using 100% MDI.
- The production limits in conditions 5.1.2-5.1.4 were increased.
- Maximum resin and wax usages in conditions 5.1.5 and 5.1.6 were removed.
- Maximum primer usage in condition 5.1.7 was increased.
- The styrene, formaldehyde, and methanol limits in old conditions 5.1.9, 5.1.14, and 5.1.15 were combined into a table which now limits styrene, formaldehyde and methanol from each emission point instead of just facility-wide limits. The table is included with the new condition 5.1.9.
- Condition 5.1.10 was removed.
- New condition 5.1.14 limits sodium bicarbonate usage in the die cleaning operation to 22 TPY. The die cleaning operation was added under R13-2192L.
- Condition 5.1.16 previously required compliance with 40 CFR 63 Subpart DDDD by October 1, 2008. This condition was revised to require JELD-WEN to comply with all provisions of its consent decree (Civil Action No. 3:11-453ST, DOJ No. 90-5-2-1-09567) including final compliance with 40 CFR 63 Subpart DDDD no later than August 4, 2014. Appendix A, a 2008 extension approval document for 40 CFR 63 Subpart DDDD, was removed since it is no longer referenced by this condition and contains outdated information.
- References for condition 5.1.23 were revised to include condition 4.1.14 of R13-2192N.
- Condition 5.2.1 was changed to add monitoring and recordkeeping of styrene content and usage of the primer and polymer.
- New condition 5.2.2 was added to require recordkeeping of methanol content of the die coating.

- Condition 5.2.3 was revised removing portions that referred to R13-2192F. Since this condition was not included in R13-2192N, it was retained in the Title V permit under 45CSR§30-5.1.c.1 in order to demonstrate compliance with the emission limits in conditions 5.1.12 and 5.1.13.
- Condition 5.2.4 was revised to require recordkeeping of formaldehyde content of the primer and preservative.
- New condition 5.2.5 requires any future testing of the press vents to be performed while the press enclosure is under negative pressure that meets the criteria of 40 CFR 51 Appendix M, Method 204.
- References for condition 5.4.10 were revised to include condition 4.3.11 of R13-2192N.
- Condition 5.4.11 was added requiring monthly records of the amount of sodium bicarbonate used at the die cleaning operation. The die cleaning operation was added under R13-2192L.
- Appendix B was renamed as Appendix A.
- Appendix C has been removed. All portions of this permit that reference this appendix have been removed with this modification.
- Several citations were updated to reflect formatting changes made in R13-2192N.

### Compliance Plan Updates

Several conditions were removed from this permit's compliance plan as follows:

1. Condition 5.6.1 required performance tests to be conducted to demonstrate initial compliance with the "production based compliance" option of 40 CFR §63.2240(a).

A performance test on the Rotary Valve was conducted on March 20, 2007. JELD-WEN requested that the March 2007 performance test be used to demonstrate compliance with the Rotary Valve testing requirement in Condition 5.6.1 and received a performance testing waiver from the DAQ dated May 12, 2009. The other affected sources were tested on November 19-20, 2008 (within 180 days of the 9/22/2008 permit issuance). The final test report was submitted on February 15, 2009.

2. Condition 5.6.2 required demonstration of initial compliance with the production based compliance option of 40 CFR §63.2240(a).

Initial compliance with the production based compliance option for the rotary valve was demonstrated with the March 2007 performance test and the July 30, 2008 Notification of Compliance Status report as outlined in the performance testing waiver dated May 12, 2009.

3. Condition 5.6.3 required submission of a Notification of Compliance Status containing the results of the initial compliance demonstration.

The Notification of Compliance Status containing the results of the initial compliance demonstration on the rotary valve was submitted to the DAQ on July 30, 2008 as outlined in the performance testing waiver from the DAQ dated May 12, 2009.

4. Condition 5.6.7 required a complete and timely Title V Permit modification application for the incorporation of 40 CFR 63 Subpart DDDD within 150 days following the completion of the performance tests of condition 5.6.1.

JELD-WEN submitted a NSR permit application to the DAQ on September 19, 2008 in preparation for a Title V modification. The DAQ requested JELD-WEN withdraw the application pending the conclusion of 40 CFR Part 63, Subpart DDDD negotiations with EPA and the Department of Justice. An application to modify the Title V permit to incorporate the 40 CFR Part 63, Subpart DDDD requirements will be submitted to DAQ by August 4, 2012 as required by Consent Decree (Civil Action No. 3:11-453ST, DOJ No. 90-5-2-1-09567).

### **40 C.F.R. 63, Subpart DDDDD (Boiler MACT) Requirements for Boilers B1 and B2 [E5 and E6]**

On February 21, 2011, EPA signed the final rule for the Boiler MACT. This rule was published in the Federal Register on March 21, 2011 which established the existing source compliance date as March 21, 2014 (the new source compliance date was May 20, 2011). Boilers B1 and B2 [E5 and E6] are hogged fuel-fired and natural-gas fired, respectively. Boilers B1 and B2 [E5 and E6] have maximum design heat inputs of 62.5 and 37.7 MMBtu/hr, respectively. The 40 C.F.R. 63, Subpart DDDDD, "National Emission

Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters,” placeholder language was included as Condition 4.1.12.

On May 18, 2011 EPA published a Federal Register final rule (76 FR 28662-28664) staying 40 CFR 63, Subpart DDDDD in its entirety along with an indefinite delay of its effective date. However, on January 9, 2012 the US District Court for the District of Columbia declared unlawful EPA’s May 18, 2011 stay and delay of the major source Boiler MACT (40 CFR 63, Subpart DDDDD) and new portions of CISWI (40 CFR 60, Subparts CCCC and DDDD). However, EPA has plans to finalize its reconsidered versions of these rules by Spring 2012, and replace these newly reinstated rules, including re-setting of reporting and compliance timelines. In a January 18, 2012 letter to Senator Wyden of Oregon, EPA Administrator Jackson stated that using its enforcement discretion, EPA does not intend for the recent court decision to impact new or existing sources in the interim before the new rules are promulgated.

### **Non-Applicability Determinations**

The following requirements have been determined not to be applicable to the subject facility due to the following:

The non-applicability determinations with the 2008 renewal remain unchanged.

### **Request for Variances or Alternatives**

None

### **Insignificant Activities**

Insignificant emission unit(s) and activities are identified in the Title V application.

### **Comment Period**

Beginning Date: July 26, 2012  
Ending Date: August 27, 2012

All written comments should be addressed to the following individual and office:

Rex Compston, P.E.  
Title V Permit Writer  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

### **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

**Point of Contact**

Rex Compston, P.E.  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 1209 • Fax: 304/926-0478

**Response to Comments (Statement of Basis)**

Not applicable.